REMARKS

The above-identified patent application has been amended and Applicants respectfully request the Examiner to reconsider and again examine the claims as amended.

Claims 1-19 are pending in the application. Claims 1-19 are rejected. Claims 4, 6, 10, and 13 are amended herein for reasons of clarity and grammatical correctness and not for reasons of patentability, as will be apparent. Claim 2 is also amended herein.

FIG. 3 is amended herein as described above.

The Rejections under 35 U.S.C. §102(b)

The Examiner rejects Claims 1-19 under 35 U.S.C. §102(b) as being anticipated by Moody et al. (U.S. Patent number 6,232,768).

Applicants submit that Claim 1 is patentably distinct over Moody et al., since the cited reference neither describes nor suggests "... a first digital-to-analog converter for providing a first output signal having a first step size; *a second digital-to-analog converter for providing a second output signal having a second step size larger than said first step size*; and *a summation circuit coupled to said first and said second digital-to-analog converters* for providing said tracking signal as a sum of said first and said second output signals," as set forth in Claim 1.

The claimed invention has at least two digital-to-analog converters, one having a larger step size than the other. With this particular arrangement, the present invention is able operate in two modes. The two modes are described, for example, from page 11 to page 12, in conjunction with Figure 5. In Figure 5, a first digital-to-analog converter (e.g., 62, Figure 3) can generate small steps in a PEAKDAC signal, and a second digital-to-analog converter (e.g., 70, FIG. 3) can generate larger steps in the PEAKDAC signal. In operation, the larger steps generated by the second digital-to-analog converter 70 allow the PEAKDAC signal to track a DIFF signal and to "catch up" to the DIFF signal, for example, when the DIFF signal is rapidly varying.

In contrast, Applicants submit that Moody et al. provides digital-to-analog converters having the same step size. As is understood by those having ordinary skill in the art, a step size of a digital-to-analog converter is the size of a *transition* (voltage or current) of an analog output signal from the digital-to-analog converter in response to a digital input signal to the digital-to-analog converter that changes by one least significant bit.

The Examiner uses Fig. 9 of Moody to show two different step sizes. Accordingly, in his Office Action, the Examiner asserts that in Fig. 9 "...the second step signal has a larger voltage." Applicants respectfully disagree with the Examiner's interpretation of Moody's Fig. 9 and the claimed "second step size larger than the first step size." Contrary to the Examiner's assertion, referring to Fig. 9 of Moody et al., the larger *voltage* of the V_{P2} signal relative to the V_{N2} signal does not represent the claimed "...*second digital-to-analog converter for providing a second output signal having a second step size larger than said first step size*... ." The "larger voltage" to which the Examiner may be referring is merely a DC voltage level, not a transition size, and therefore, is not representative of a step size of a digital-to-analog converter. Stated differently, the "larger voltage" in Moody is simply the result of providing a larger digital input signal to the digital-to-analog converter. It is not a result of using a digital-to-analog converter with a larger step size, as claimed.

More particularly, Applicants submit that sizes of transitions of the V_{P2} signal and of the V_{N2} signal in Fig. 9 (see also Fig. 1 of Moody) are not representative of step sizes of the associated digital-to-analog converters 44, 54 in Fig. 1, which generate the V_{P2} signal and the V_{N2} signal. As can be seen in FIG. 1, the V_{P2} signal is generated by a P-DAC2 44, which results from a latched digital signal provided by a P latch 42. The P latch 42 is responsive to a counter 17 and to a latch signal provided by a one shot generator 41. Unlike the counter 17, the P latch 42 can generate successive digital words at an output thereof that differ by more than one least significant bit. Accordingly, the P-DAC2 44 has analog signal transitions in the output signal V_{P2} that can be larger than a *step size* of the P-DAC2 44. The same holds true for the N-DAC2 54, which can have analog signal transitions in the output signal V_{N2} that can be larger than a

step size of the N-DAC2 54. Therefore, Applicants submit that it is not possible from Fig. 9 of Moody et al. to identify *a step size* of the P-DAC2 44 or of the N-DAC2 54.

Applicants submit that the P-DAC2 44 and the N-DAC2 54 of Moody et al. have the same step size. Since operation of the P-DAC2 44 and the N-DAC2 54 is symmetrical with respect to the signal V_{sig} (see, e.g., Fig. 9), Applicants submit that it is advantageous for the P-DAC2 44 and the N-DAC2 54 to generate the same step size, rather than different step sizes as claimed. Having the same step size, the P-DAC2 44 and the N-DAC2 54 can symmetrically track positive and negative peaks of the signal V_{sig} as represented in Fig. 9.

In view of the above, Applicants submit that Claim 1 is patentably distinct over Moody et al.

Claims 2-9 depend from and thus include the limitations of Claim 1. Thus, Applicants submit that Claims 2-9 are patentably distinct over the cited reference at least for the reasons discussed above in conjunction with Claim 1.

For substantially the same reasons discussed above in conjunction with Claim 1, Applicants submit that amended Claim 2 is further patentably distinct over Moody et al., since the cited reference neither describes nor suggests "... said tracking signal is controlled in response to said too-far-behind signal *to include steps associated with the first step size when the too-far-behind signal is in a first state and to include larger steps associated with the second step size when the too-far-behind signal is in a second state*," as set forth in amended Claim 2.

Claim 4 is amended herein for reasons of antecedent basis and not for reasons of patentability as will be apparent. Applicants submit that Claim 4 is further patentably distinct over Moody et al., since the cited reference neither describes nor suggests "...in response to the first state of said too-far-behind signal *said second counter is stepped in association with a terminal count of said first counter*, and in response to the second state of said too-far-behind signal said second counter is also stepped," as set forth in Claim 4.

Operation of the counters 58, 68 of FIG. 3 of the present application is described in detail, for example, at pages 7 and 8 of the present specification. With this arrangement, referring to FIG. 3, depending upon a state of a TOO-FAR-BEHIND signal, the second counter 68 either counts transitions occurring at a "borrow" input in accordance with a terminal count of the first counter 58, which is represented by a change of state of a "carry" output signal from the first counter 58, or it counts transitions occurring at a "Clk" input. When counting transitions at the borrow input, the counter 68 counts slowly, and when the counter 68 counts transitions at the Clk input, it counts more rapidly.

The Examiner uses Moody et al. at column 5, line 51 to column 6, line 5 to show the second counter stepped in association with a terminal count of a first counter as in Claim 4. However, Applicants can find no such arrangement in Moody et al. In contrast, the counters 17 and 27 of Moody et al. have no borrow inputs or carry outputs and the counters 17, 27 count only transitions provided by a clock source 18.

For substantially the same reasons discussed above in conjunction with Claims 1 and 2, Applicants submit that Claim 10 is further patentably distinct over Moody et al., since the cited reference neither describes nor suggests "...changing step size of said tracking signal in response to a change of state of said too-far-behind signal," as set forth in Claim 10.

Claims 11-19 depend from and thus include the limitations of Claim 10. Thus, Applicants submit that Claims 11-19 are patentably distinct over the cited reference at least for the reasons discussed above in conjunction with Claim 10.

For substantially the same reasons discussed above in conjunction with Claim 4, Applicants submit that Claim 12 is further patentably distinct over Moody et al., since the cited reference neither describes nor suggests "...in response to a first state of said too-far-behind signal *said second counter is stepped in association with a terminal count of said first counter*,

and in response to a second state of said too-far-behind signal said second counter is also stepped... ," as set forth in Claim 12.

Accordingly, Applicants submit that the rejection of Claims 1-19 under 35 U.S.C. §102(b) should be removed.

In view of the above Amendment and Remarks, Applicants submit that Claims 1-19 and the entire case are in condition for allowance and should be sent to issue and such action is respectfully requested.

The Examiner is respectfully invited to telephone the undersigning attorney if there are any questions regarding this Amendment or this application.

The Assistant Commissioner is hereby authorized to charge payment of any additional fees associated with this communication or credit any overpayment to Deposit Account No. 500845, including but not limited to, any charges for extensions of time under 37 C.F.R. §1.136.

Respectfully submitted,

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DALY, CROWLEY, MOFFORD & DURKEE, LLP

By: _____

Kermit Robinson
Reg. No. 48,734
Attorney for Applicant(s)
354A Turnpike Street - Suite 301A
Canton, MA 02021-2714
Tel.: (781) 401-9988, Ext. 24
Fax: (781) 401-9966
kr@dc-m.com

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Appendix:

FIG. 3 in a version showing changes and as a Replacement Sheet.

Amendments to the Drawings:

The Examiner objected to the drawings due to a minor informality in FIG. 3, stating that the reference numeral 52 should be 56. The attached sheet of drawings includes changes to FIG. 3 in accordance with the Examiner's objection and replaces the original sheet FIG 3.

FIG. 3